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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/071,198	02/11/2002	Joseph M. Nicosia	A8309	2988

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EXAMINER

BEAULIEU, YONEL

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 07/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/071,198

Applicant(s)

NICOSIA ET AL.

Examiner

Yonel Beaulieu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Specification

The title of the invention is not descriptive (the method claimed is not supported). A new title is required that is clearly indicative of the invention to which the claims are directed.

Also, the abstract of the disclosure is objected to because the abstract does not support the "method" claimed. Correction is required. See MPEP § 608.01(b).

Moreover, the brackets "[...]" enclosing the texts on page 4, lines 7-8 under the "Summary of the Invention" suggest deletion. Is that the intention?

Oath/Declaration

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because: the prior U.S. Application listed as "09/779,723" under 35 USC § 120 should read - -09/799,723- -.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 – 21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The method claimed is not supported by either a flowchart or flowcharts or described in the specification in a way to enable one skilled artisan to make and/or use the invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 22 - 24, 29, 34 – 36, and 40 – 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Bhanu et al. (US 5,128,874).

Regarding claims 22, 29, and 34, Bhanu et al. teaches a navigation system (10) comprising a memory (within item 12) that stores information of natural features (note scene analysis (20) in an area of the ground along and to the sides of a movement path (col. 14: 8 – 13 at least; see figs. 10a – 10d); an active traveling-wave device that obtains information during movement along the path (col. 1: 6 – 23 at least); a

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processing system that compares the stored information with the information obtained by the active device to determine successive different match points representing different ground locations (see figs. 10a – 10c; col. 9: 13 – col. 10: 35 at least); the system determining the range and range rate of each of the match points (using item 28; note col. 12: 4 – 37 at least) and determining the vehicle's location and velocity based upon repetitive range and range rate measurements of the match points (col. 2: 33 – 44 at least).

Regarding claim 23, Bhanu et al.'s system further includes integration of inertial measurements (note item 18 in fig. 1; col. 3: 51- 56 at least).

Regarding claim 24, Bhanu's system further uses Kalman filtering (col. 8: 12 – 19 at least).

Regarding claims 35 and 36, besides the limitations addressed above, Bhanu's created scene is sufficiently complex to be locally unique (see figs. 10a – 10c at least).

Regarding claims 40 – 42, Bhanu teaches the use of a LASER device (figs. 1, 4a, 4c; col. 1: 18 – 21; col. 6: 56 – 58 at least).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhanu as applied to claims 29 and 34 above.

While Bhanu is not explicit on making the active traveling-wave device a sonar device, such would have been obvious to one of ordinary skill in the art at the time of the invention as only involving routine skill in the art.

Allowable Subject Matter

Claims 25 – 28 and 30 – 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record fail to teach a navigation system, comprising, among other limitations, a processing system which defines subsets of a frequency hopped signal and a center frequency for each subset, bounces the signal off of an object and receives a reflected version of the signal to determine a phase change in the signal, receives reflected versions of the subsets, and subtracts phase effects from the

samples that correspond to the center frequency of the subset; the system further stores a pseudo-random frequency order in a memory, changes a transmission frequency of a signal based on the pseudo-random frequency order, uses the order to sample a received signal – thereby generating samples of the received signal – and reorders the samples in an order of increasing frequency; the system further subtracts phase rotations from the corresponding samples according to the time order and wavelength of the sample to thereby reduce effects of motion of the navigation system on the interpretation of the received signals.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chan et al. (US 4,520,506) teaches a method and system for reconstruction of cultural data for use in a digital moving map display.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yonel Beaulieu whose telephone number is (703) 305-4072. The examiner can normally be reached on M-R, from 0900-1600.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William A. CUCHLINSKI can be reached on (703) 308-3873. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and same for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

Y. BEAULIEU
July 2, 2003

1002
YONEL BEAULIEU
PRIMARY EXAMINER